

PREFACE

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HAVE BEEN APPLIED FOR TO PROTECT THE DESIGN OF THIS
INSTRUMENT**

Serial Number

OPERATION AND SERVICE MANUAL

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MODEL CU10-A COMPACT LASER

MODEL CU15-A COMPACT LASER

PREFACE

This manual provides operation and servicing information for the Compact Metal Vapour Lasers, models CU10-A and CU15-A. The manual is divided into eleven chapters:

- Chapter 1 - gives a brief introduction to the Copper Vapour Laser systems.
- Chapter 2 - gives safety information on the laser systems. It is essential that this chapter should be read before any attempt is made to operate the laser.
- Chapter 3 - provides a brief summary of the laser operation procedures. This chapter is intended as a reminder for experienced users, and should never be used by first time operators.
- Chapter 4 - contains descriptions of the laser controls and indicators, with explanations of their functions, and also provides detailed operating procedures.
- Chapter 5 - provides the procedures necessary for servicing the CU10-A and CU15-A, both as required for the servicing schedule, and for corrective action after a fault.
- Chapter 6 - contains fault finding procedures for the laser systems.
- Chapter 7 - provides an explanation of the principles of operation of Copper Vapour Lasers.
- Chapter 8 - contains a technical description of the laser systems, and the specification and services required.
- Chapter 9 - gives details of the procedures necessary for unpacking and installing the laser system, from initial delivery through to the system being ready for normal operation.
- Chapter 10 - provides details of accessories and spares for the lasers.
- Chapter 11 - contains associated vendor data for the various assemblies fitted in the laser systems, and circuit diagrams for the systems.

SERVICE AND GUARANTEE

SERVICING

Customers who purchased their equipment directly from Oxford Lasers should notify this company if service is required. If the instrument was purchased through one of our distributors, they should be contacted in the first instance. However, if an overseas customer is unable to gain satisfactory answers to his enquiries from our distributor, Oxford Lasers should be contacted directly.

OXFORD LASERS LTD is constantly improving its products to best serve the needs of its customers. The company will be pleased to accept any suggestions from customers for improvements to its products or comments regarding features which a customer has found to be useful.

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GUARANTEE

OXFORD LASERS WARRANTY - 1 JANUARY 1985

- 1) In the case of goods of our own manufacture, we shall replace or repair free of charge any components or parts of any goods supplied which fail within twelve months of the date of despatch, solely as a result of faulty materials or bad workmanship, provided always that Oxford Lasers are notified of the fault within 30 days of discovery, and that the defective parts are despatched by the buyer at his expense to Oxford Lasers Ltd., U.K. also within 30 days of the discovery of the defect, unless otherwise arranged. Any labour costs involved in refitting into the equipment will not be the responsibility of Oxford Lasers Ltd.
- 2) In the case of goods or components not of our manufacture, with the exception of Thyratrons, any guarantees shall be limited to that given by the manufacturer/supplier of the goods.
- 3) Certain parts, as specified elsewhere in this manual, are regarded as consumable components/materials and are not covered by any warranty.
- 4) See our Terms and Conditions of Sale for complete details.

OXFORD LASERS LTD

STATEMENT OF THYRATRON WARRANTY

Due to our confidence in the performance of the EEV CX1535 Thyatron when used in the Oxford Lasers range of metal vapour lasers, we are prepared to offer the following warranty, supplementary to that of the Thyatron manufacturer:

The terms of the warranty are as follows with appropriate warranty periods given in Table 1 below.

Oxford Lasers will replace or repair free of charge any Thyatron purchased from the Company which falls within the appropriate warranty period (see Table 1). This warranty applies both to Thyatrons built into Oxford Lasers equipment and to spare Thyatrons purchased from the Company for use in Oxford Lasers equipment. This warranty is invalidated if the Thyatrons are used in equipment other than that supplied by Oxford Lasers.

Table 1 Warranty periods for Oxford Lasers laser products

LASER MODEL	WARRANTY PERIOD (or 12 months, whichever occurs sooner)
CU10-A, CU15-A, ACL25, ACL35	1,000 running hours
ACL45, ACL100	500 running hours

Important Notes

- a) "Running hours" count as any period for which the high voltage modulator is active in switching the laser discharge.
- b) This warranty will be void if:
 - i) The high voltage circuit elapsed time indicator circuit has in any way been tampered with.
 - ii) The laser has been operated outside the specified power input and pulse repetition rate ranges, or has been operated in a mode detrimental to the well-being of the Thyatron contrary to the instructions given in this manual.
- c) Oxford Lasers' obligation shall be to replace free of charge any Thyatron failing within the appropriate warranty period, subject to notes a) and b) above. The warranty periods on Thyatrons replaced free of charge shall not be cumulative.

WARRANTY PROCEDURE

Replacement Thyratrons under the terms of Oxford Lasers' warranty can only be obtained by complying with the following procedure:

- i) The buyer returns the defective Thyatron to the local Oxford Lasers office (or distributor) within thirty days of the discovery of the defect, and at his own expense, unless otherwise arranged.
- ii) Any returned Thyratrons must be accompanied by the following information:
 - a) Total running hours of the defective Thyatron
 - b) Cumulative running hours of the laser
 - c) Brief description of fault condition
- iii) Paperwork accompanying any overseas return shipment should be marked:
"Defective Component - No commercial value"
(i.e. quote a zero value for customs purposes)

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